Figure 6

Figure 7

Figure 8

Figure 9

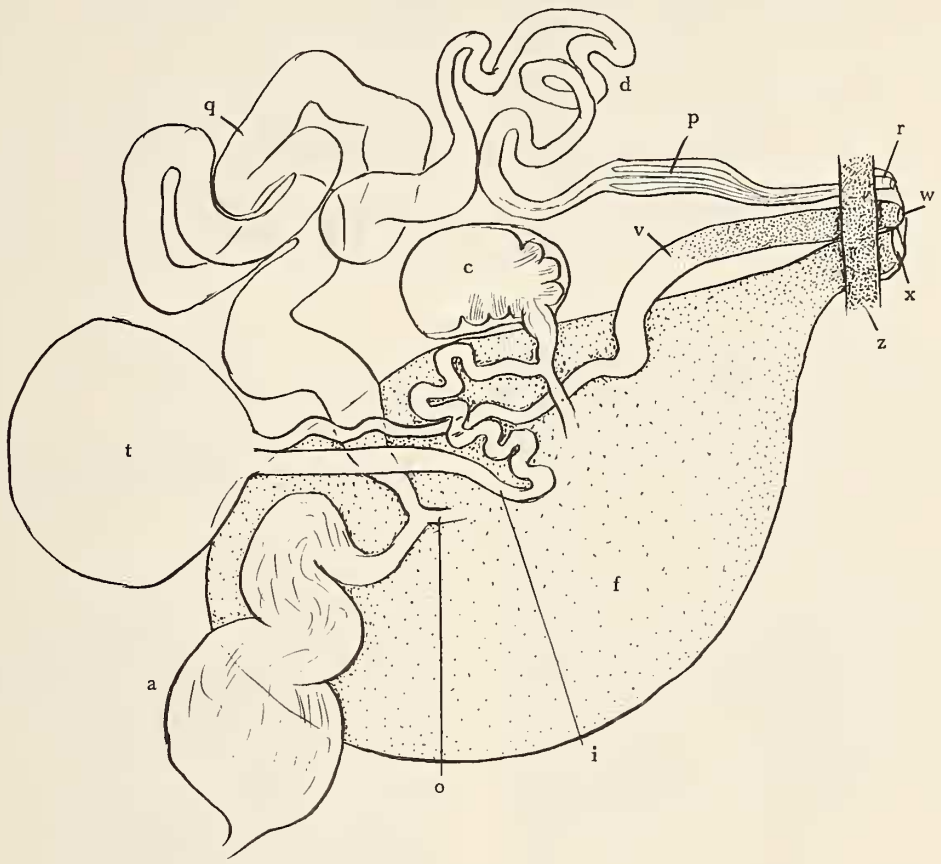

Figure 4

Dendrodoris warta Marcus & Gallagher, spec. nov.

Diagram of Reproductive Organs

a – ampulla c – spermatocyst d – efferent duct
f – female gland mass i – insemination duct o –oviduct
p – penis q – prostatic part of male duct r – male pore
t – spermatheca v – vagina w – vaginal opening
x – female aperture z – body wall

is narrowed. It enters the globular spermatheca (t), where the wide insemination duct (i) leaves it. This is the semi-serial type (Odhner, 1926: 51). The insemination duct forms a loop, its ental limb is narrower than the ectal one. After giving off a wide connection to the spermatocyst (c), it opens into the female gland mass. While the globular spermatocyst is smooth in *Dendrodoris krebsii*, it is loculate in *D. warta*, as in *Sebadoris* and other genera (Marcus, 1975, in press).

I did not find a vestibular gland, such as was observed in a small specimen of *Dendrodoris krebsii* (Marcus, 1957: 446; fig. 151, w).

Figure 5

Dendrodoris warta Marcus & Gallagher, spec. nov.

Section of Vagina

Discussion (E. M.): The most similar species is *Dendrodoris tuberculosa* (Quoy & Gaimard, 1832), redescribed by Bergh (1879: 38; plt. 1, figs. 21; plt. 2, figs. 18-20; plt. 3, fig. 1), Pruvot-Fol (1934: 59), Burn (1962: 165, 166: *D. tuberculata* Q. & G.), Guang-Yu & Tchang Si (1965: 13; plt. 3, fig. 7), and Kay & Young (1969: 219;

figs. 69, 72), and listed by KENNY (1970: 90: *D. tuberculata*). *Dendrodoris tuberculosa* ranges from Mauritius to Hawaii, the China Sea and Australia. *Dendrodoris warta* differs from *D. tuberculosa* by more numerous and smaller notal warts, not surrounded by lesser ones. In *D. tuberculosa* the penial duct is lined with distinct cirral hooks.

Dendrodoris pustulosa (Alder & Hancock, 1864: 128) from the Indian Ocean and the Red Sea (ENGEL & VAN EEKEN, 1962: 27) has dark spots on its overhanging undersides.

Observations of the Living Animals (S. G.): First found July 10, 1972, intertidally in a canal in Boca Ciega Bay, just south of John's Pass in Treasure Island, Florida. The animals adhered to the under surface of clusters of the oyster *Crassostrea virginica* (Gmelin, 1791), which were infested with a bright orange boring sponge. The specimens studied were found from July to December 1972; one more was found July 1973, but since then no more have been seen. They ranged in size from 4 to 12 cm long when fully extended, the large animals more than 8 cm being found in November and December. The width was generally $\frac{1}{2}$ or slightly less of the length, the height about $\frac{1}{3}$ of the length. During December 1972 the cold weather and low spring tides killed many of these animals.

The color of the living animals was a dark brown background with tan to pinky-beige warts covering the notum. The notal margin was also pale, and though wavy, did not have any warts. The foot was smooth and dark brown except for a pale margin. The rhinophores have white lamellae and tips. They are brown at the base. They are retractile as are the gills. The feces were bright orange, the same color as the boring sponge upon which the animals fed.

Several animals were kept in aquaria for up to 4 weeks, in aerated bay water of 34 - 35‰ salinity, changed every 2 days. They fed upon boring sponges on oyster clusters. Feeding episodes lasted 2 - 3 days, after which the slugs crawled on the sides and bottom of the aquarium, or upside down on the surface film of the water. After feeding, the color of the warts and notal edges became tinged with orange.

In several instances two animals paired head to tail, right sides together, but no eggs were laid in the aquaria. One egg ribbon was produced in the canal December 10, 1972. It was a ruffled orange spiral, 3.5 cm in diameter, attached to the upper surface of an oyster cluster. The width of the ribbon was 1 cm. The orange eggs were found in the one-cell stage. A portion of the spawn was observed in the laboratory. The eggs were enclosed singly in round capsules of approximately 0.17 mm diameter; the eggs were 0.12 mm in diameter. They took $6\frac{1}{2}$ days till the veligers hatched at 24 - 25° C. During the development an orange spot was seen in the viscera of the veliger.

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